

REMARKS:

INTRODUCTION:

In accordance with the foregoing, claims 1, 2, and 4 – 7 has been amended and claims 8 – 16 have been added. No new matter is being presented, and approval and entry are respectfully requested. Claims 1 – 16 are pending and under consideration. Reconsideration is respectfully requested.

CLAIM AMENDMENTS:

Claims 1, 2, and 4 – 7 have been amended to clarify and more succinctly state without narrowing what was previously claimed. The claim amendments do not introduce any new subject matter.

REJECTION UNDER 35 U.S.C. §103:

In the Office Action mailed May 13, 2005, at page 2, claims 1 – 7 were rejected under 35 U.S.C. §103 as unpatentable over Levin U.S. Patent No. 6,144,007 (hereinafter “Levin”) in view of Takahashi et al. U.S. Patent No. 5,961,857 (hereinafter Takahashi). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Claim 1 is directed to a laser machining apparatus providing a controller for the laser beam that generates timing data in the terms of time period from the start of the interpolation period, in the terms of a ratio of dividing the interpolation period, in terms of a ratio between motion amounts of successive motion commands, and in terms of a value calculated based on the ratio.

In contrast, Levin does not disclose the parameters used to readjust the interpolation period. Takahashi discloses the generation of timing data in terms of relative time delay from the prescribed schedule. (Col. 9 Lines 37 – 43) Neither of the cited references teaches:

said controller including timing data generating unit to generate timing data defining time to deliver a laser output control signal to said laser oscillator in terms of a time period from a start of an interpolation period in which the laser output control signal is to be delivered, or in terms of a ratio of dividing said interpolation period

as set forth in claim 1. Consequently, it is submitted that claim 1 is patentably distinguishable over Levin in view of Takahashi.

Claims 2 – 7 depend from claim 1 and include all the features of that claim plus additional features not taught or suggested by the prior art. For example, the prior art does not teach “the timing data are provided in terms of a ratio between motion amounts of successive motion commands for the interpolation period in which the motion amounts of the successive motion commands are added together or in terms of a value calculated based on the ratio” as set forth in claim 3. In contrast, Takahashi teaches the generation of timing data in terms of relative time delay from the prescribed schedule. (Col. 9 Lines 37 – 43) Therefore, it is submitted that claims 2 – 7 are patentably distinguishable over Levin in view of Takahashi.

NEW CLAIMS:

Claims 8 – 9 depend from claim 1 and include all the features of that claim plus additional features not taught or suggested by the prior art. Therefore, it is submitted that claims 8 – 9 are patentably distinguishable over the prior art.

Claim 10 recites “generating timing data to define a time to deliver a laser output control signal used to control the laser beam in terms of a time period from a start of an interpolation period in which the laser output control signal is to be delivered, or in terms of a ratio of dividing the interpolation period”. Therefore, it is submitted that claim 10 is patentably distinguishable over the prior art.

Claims 11 – 16 depend from claim 10 and include all the features of that claim plus additional features not taught or suggested by the prior art. For example, none of the cited references teach: “wherein said generating timing data determines the timing data in terms of a ratio between motion amounts of successive motion commands for the interpolation period in which the motion amounts of the successive motion commands are added together or in terms of a value calculated based on the ratio” as set forth in claim 12. Therefore, it is submitted that claims 11 – 16 are patentably distinguishable over the prior art.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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